

ABSTRACT

A nozzle for an injection molding apparatus is provided. The nozzle includes a nozzle body, a heater, a tip, a tip surrounding piece and a seal piece. The nozzle body defines a nozzle body melt passage, which is adapted to be in fluid communication with an upstream melt source. The heater is thermally connected to the nozzle body for heating melt in the nozzle body melt passage. The tip is removably connected to the nozzle body. The tip defines a tip melt passage therethrough. The tip melt passage is downstream from and in fluid communication with the nozzle body melt passage, and is adapted to be upstream from and in fluid communication with a mold cavity in a mold component. The tip surrounding piece is removably connected with respect to the nozzle body. The tip surrounding piece is spaced from said tip. The seal piece is positioned between the tip and the tip surrounding piece. The seal piece forms a seal with the tip and with the tip surrounding piece to inhibit melt leakage between the seal piece and the tip and between the seal piece and the tip surrounding piece, so that, in use, at least a portion of the tip and the tip surrounding piece are separated by an air gap.